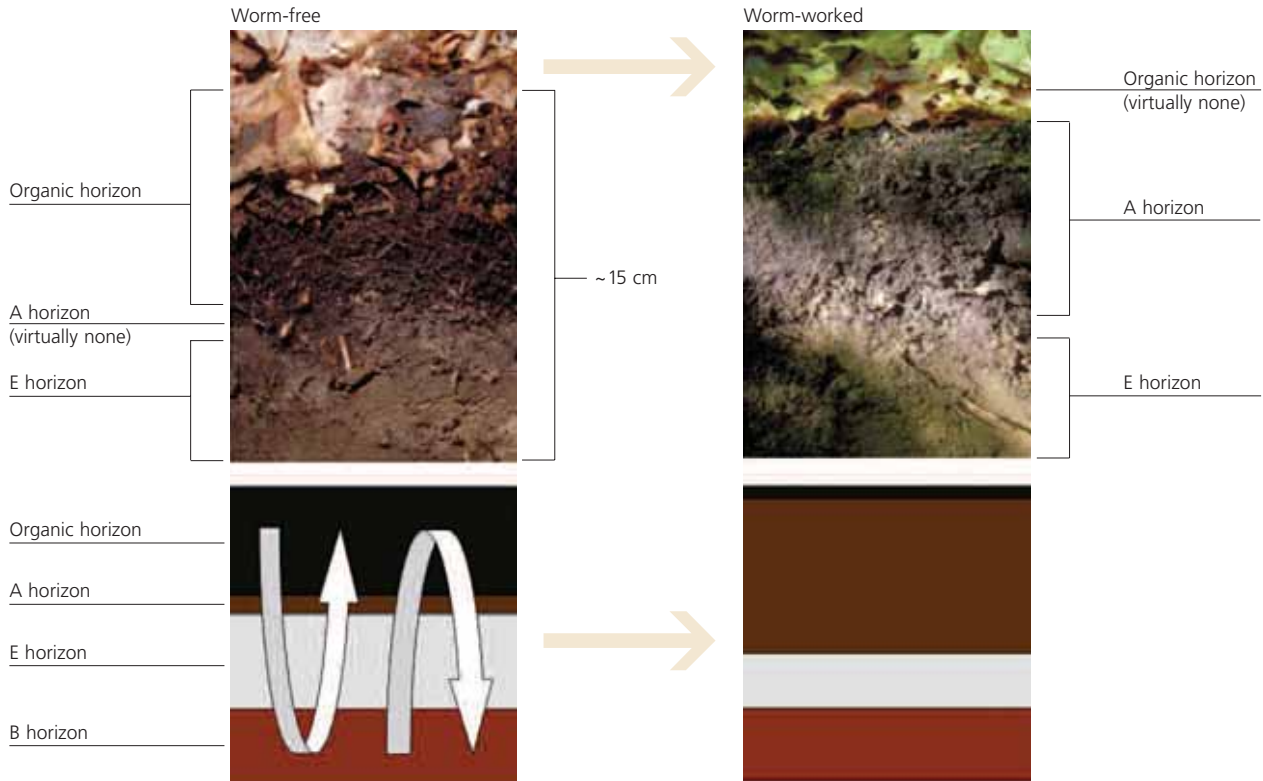


## SOIL PROFILES, VOYAGEURS NATIONAL PARK, MINNESOTA



The introduction of earthworms in two kinds of northern forests threatens native understory plants by changing the soil profile. The soil before earthworms arrive has a thick organic layer at the surface, underlain by a thin mineral-mixed-with-humus (A horizon) layer, underlain by a leached, sandy loam layer.

Earthworms mix these layers, creating a thick A horizon at the expense of the other two layers. The resulting soil is less hospitable to the native understory, possibly rendering it vulnerable to exotic invasive plants, a situation of concern to managers.